

WHAT IS CLAIMED IS:

1. A voltage offset compensating device for a Code Division Multiple Access (CDMA) communication system transmitter, comprising:

a codec unit that converts a first signal inputted through a microphone into a digital second signal;

a modem unit that converts the first signal inputted from the codec unit into a digital third signal adaptable to a CDMA method communication by compensating a voltage offset of the second signal;

a Base Band Analog (BBA) unit that converts the digital third signal applied from the modem unit into an analog fourth signal; and

a voltage measuring unit that measures a voltage value of a plurality of channels of the BBA unit in accordance with a control signal of the modem unit, converts it into a digital fifth signal, and feeds the digital fifth signal into the modem unit.

2. The device of claim 1, wherein the modem unit compensates the voltage offset of the digital second signal inputted from the codec unit in accordance with a signal inputted from the voltage measuring unit, and outputs the digital third signal.

3. The device of claim 1, wherein the voltage measuring unit comprises: a switching unit that selects a signal from among signals of the plurality channels of the BBA unit in accordance with the control signal of the modem unit and outputs said selected signal; and

an ADC (Analog to Digital Converter) that converts the voltage value from the switching unit into the fifth digital signal and transmits the control signal to the modem unit.

4. The device of claim 3, wherein the voltage measuring unit further comprises a decoder that outputs a sixth signal that controls the switching unit by combining the control signal from the modem unit.

5. The device of claim 1, wherein the voltage measuring unit comprises:
a switching unit that selects two signals from among signals of two channels of the BBA unit in accordance with the control signal of the modem unit and outputs said selected two signals; and
an ADC that converts the differential value of the two signals applied from the switching unit into a digital seventh signal and transmits said digital seventh signal to the modem unit.

6. A voltage compensating CDMA (Code Division Multiple Access) system, comprising:
a modem unit;
a BBA (Base Band Analog) unit electrically coupled to the modem unit; and
a voltage measuring unit electrically coupled to said BBA unit and said modem unit, wherein said voltage measuring unit receives at least one electrical signal, said voltage

measuring unit generates a compensation signal in accordance with said at least one electrical signal, and said modem unit receives said compensation signal and adjusts said at least one electrical signal in accordance with said compensation signal.

7. The system of claim 6, wherein a D.C. voltage offset of said at least one electrical signal is adjusted in proportion to said compensation signal.

8. The system of claim 6, further comprising:
a control signal received by said voltage measuring unit, wherein said control signal determines which of said at least one electrical signal causes said voltage measuring unit to generate said compensation signal.

9. The system of claim 8, wherein said control signal is generated by said modem unit.

10. The system of claim 8, wherein said voltage measuring unit comprises an ADC.

11. The system of claim 10, wherein said voltage measuring unit comprises:
a switching unit that receives said control signal which causes said ADC to be electrically connected to at least one of said plurality of electrical signals and said ADC generates said compensation signal.

12. The system of claim 11, wherein said control signal comprises a digital signal, said switching unit comprises four switches, and said plurality of electrical signals comprises four voltage signals.

13. The system of claim 11, wherein said voltage measuring unit comprises a 2x4 digital decoder and a switching unit, and said 2x4 digital decoder receives said control signal and generates a switching signal, and said switching unit receives said switching signals which causes said ADC to be electrically connected to at least one of said plurality of electrical signals, and said ADC generates said compensation signal.

14. The system of claim 11, wherein said control signal comprises a 2-bit digital signal, said switching unit comprises four switches, and said plurality of electrical signals comprises four voltage signals.

15. The system of claim 8, wherein said voltage measuring unit comprises:
a select logic unit electrically connected to said BBA unit; and
a differential input ADC electrically connected to said select logic unit,
wherein said select logic unit receives said control signal which causes said differential input ADC to be electrically connected to at least two of said plurality of electrical signals, and
said differential input ADC generates said compensation signal.

16. The system of claim 6, further comprising a codec unit electrically coupled to said modem unit.

17. The system of claim 6, further comprising an RF (Radio Frequency) unit electrically coupled to said BBA unit.

18. A method for voltage compensation of a CDMA (Code Division Multiple Access) system, comprising:

measuring at least one electrical signal of a plurality of electrical signals received by a BBA (Base Band Analog) from a modem unit;

generating a compensation signal according to the measurement of said least one electrical signal; and

adjusting said at least one electrical signal in accordance with said compensation signal.

19. The method of claim 18, wherein the adjusting step further comprise:

adjusting a D.C. voltage offset of said at least one electrical signal in accordance with said compensation signal.

20. The method of claim 18, further comprising:

generating a control signal; and

selecting said at least one electrical signal from said plurality of electrical signals in accordance with said control signal.

21. An apparatus for voltage compensation of a CDMA system, comprising:

means for measuring at least one electrical signal of a plurality of electrical signals received by a BBA (Base Band Analog) from a modem unit;

means for generating a compensation signal according to the measurement of said least one electrical signal; and

means for adjusting a D.C. voltage offset of said at least one electrical signal in accordance with said compensation signal.